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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,029	09/19/2001	Kazunobu Katoh	2870-0174P	8315

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EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 11/06/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant No.

09/955,029

Applicant(s)

KATOH, KAZUNOBU

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Deroover et al ('263).

See '263 patent in column 17 line 30-35 wherein the polyethylene wax contains in the antistatic layer coated on a support having thereon silver halide/silver behenate, reducing agent and binder such as polyvinylbutyral. The polyethylene wax is equivalent to heat solvent and taught in the '263 patent in column 11 lines 1-15. Accordingly, the worker of ordinary skill in the art would use either the wax or the thermal solvent taught therein, and the invention as claimed is either anticipated or found obvious over the teaching of '263 patent.

4. Claims 1-2, 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komamura. Komamura discloses a heat developable substantially as claimed. Note to

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the binder in column 22, lines 28-33 such as synthetic high molecular component such as polyvinylbutyral, polyvinyl acetate or polymethyl methacrylate; the thermal solvent in column 23, lines 24-31 which can be incorporated in various layers such as light sensitive silver halide emulsion layer, intermediate layers and protective layer; light-sensitive silver halide and reducing agent in column 37, claim 1 and organic silver salt in column 21 lines 30-65. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to incorporate the thermal solvent in any layer other than image forming layer such as intermediate layers and protective layer to provide an invention as claimed.

5. Claims 1-18, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 083764 (EP'764) in combination with Deroover et al ('263) and Komamura.

EP'764 discloses a photothermographic material substantially as claimed. The material contains hydrophobic, thermoplastic organic binder, silver halide, silver salt of an organic acid and reducing agent. Note especially the thermoplastic resin on pages 4-5 and pages 43-44. The material also contains a surface protective layer, intermediate layer, and antihaltion layer (page 25, lines 5-10).

Deroover discloses the use of heat-solvent which is in solid state in the recording layer at temperature below 50 deg. C, but become plasticizer for recording layer in the heat region and/or liquid solvent for at least at least one of the redox-reactant, e.g. the reducing agent for the organic heavy metal salt, at a temperature above 60 deg. C. See especially Deroover in column 11, lines 1-14. Komamura discloses the thermal solvent in column 23, lines 24-31 which can be incorporated in various layers such as light

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sensitive silver halide emulsion layer, intermediate layers and protective layer. The thermal solvents are usually incorporated in an amount ranging from 10 to 500 %, preferably 30 to 200 % of the binder (column 23, lines 30-31).

EP'764 differs from the claimed material in its failure to disclose the heat-fusible solvent therein; which however has been known in Deroover as to increase reaction speed of redox-reaction in the image recording layer and in Komamura in various layers such as light sensitive silver halide emulsion layer, intermediate layers and protective layer. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the heat solvent taught in Deroover and Komamura in a various layer such as a surface protective layer, intermediate layer, and antihaltion layer (page 25, lines 5-10) of the material of EP'764 to increase the reaction speed of redox-reaction, and thereby provide a material as claimed.

6. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of EP'764, Deroover and Komamura as applied to claims 1-20 above, and further in view of the specification disclosure on page 5.

The heat fusible solvents used in the present invention have been known such as disclosed on page 5 of the specification. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use heat solvents known in the art for the reason set forth in Deroover and Komamura in the material of EP'764 to provide a material as claimed.

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***R s p o n s   t o   A r g u m   n t s***

7.     Applicant's arguments filed August 23, 2002 have been fully considered but they are not persuasive because of new ground rejection set forth above. First, unexpected results or commercial success is irrelevant to the rejection under 35 USC 102 "(E)vidence of secondary considerations, such as unexpected results or commercial success, is irrelevant to 35 U.S.C 102 rejections and thus cannot overcome a rejection so based. In re Wiggins, 488 F.2d 538, 543, 179 USPQ 421, 425 (CCPA 1973). Second two samples presented in the applicants' argument is not overcome the rejection under 35 USC 103(a). The comparative sample contains no thermal solvent and the inventive sample contains thermal solvent in an intermediate layer. This table therefore shows the comparison between the sample contains thermal solvent vs sample contains no thermal solvent which is irrelevant to the issue presented in the rejection. The essential issue is whether the photothermographic material contains thermal solvent other than the image recording layer provided an unexpected improvement of its property over the material thermal solvent in the image recording layer. The prior art of record such as Deroover taught the use of thermal solvent in the recording layer and Kokamura discloses the use of thermal solvent in any layer.

***Conclusion***


8.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (703)308-3498. The examiner can normally be reached on M-F (9:30 - 6:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C Baxter can be reached on (703)308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9301 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

tchea   
October 11, 2002

  
Thorl Chea  
Primary Examiner  
Art Unit 1752